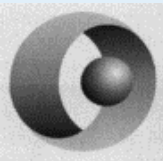


Nuclear threats: current and future governance...

Bruno Pellaud

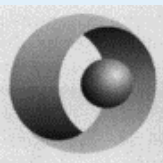
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Nuclear Consultant



Questions about governance

- How international institutions and individual nations concerned are to get together to make things happen?
- What will an effective and acceptable governance system be? What is the proper balance between "sovereign rights" and international obligations?
- Are we discussing formal or informal agreements/arrangements, or both?
- And what will be the IAEA's role?

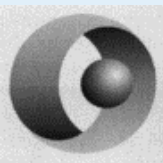


Security of Nuclear Material

Ensure that nuclear materials in use, storage or transit are not stolen

- A national responsibility
- Regional arrangements, such as Euratom in the European Union
- International standards for physical protection (IAEA)
- Convention on Physical Protection
- US-Russia programme (Cooperative Threat Reduction)

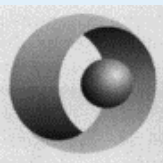
.....nations have been getting together...



Non-proliferation

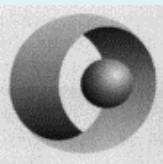
Ensure that nuclear materials are not used for the acquisition of nuclear explosive devices in any of the Non-Nuclear Weapons States (NNWS) signatories of the Non-Proliferation Treaty (NPT)

- The Non-Proliferation Treaty: the international agreement with the largest number of Members-States;
- The NPT mandates the IAEA to verify
- **Main legal instrument:** the Comprehensive Safeguards Agreement (CSA) between State and IAEA – encompassing since 1995 important sharpening verification measures. Applies in all NNWS.
- **Secondary legal instrument:** the Additional Protocol to the CSA giving much more intrusive rights to the IAEA. Since these rights went much beyond the scope of conventional safeguards, the AP had to be made voluntarily. Results: too few States have signed up. For quite a while, the AP will be implemented only in “white angels” countries...



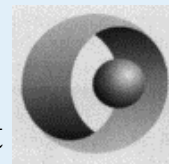
Non-proliferation: the record..

- President Kennedy was wrong (...*20-25 weapons States by the end of the century...*). The NPT must have deterred some...
- Iraq prior to 1990: failure of the conventional CSA (only declared facilities, too little bite...)
- North Korea was in violation right from the beginning (1992-93): the IAEA saw it and reported it. Subsequent events fell under the US bilateral agreement, beyond the IAEA responsibility...
- The 1990's have revealed a favourable non-proliferation trend: South Africa, South America, countries of the former Soviet Union.
- In a nutshell, nations have been getting together under the NPT, and have found a balance between national sovereignty and international obligations. The IAEA inspectorate has now the tools to be more effective ... pending political acceptance of the Additional Protocol.



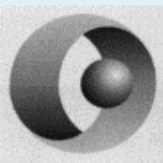
Rogue States: New situation?

- Iraq, North Korea, and to a lesser extent Iran, are “old IAEA files”:
 - Iraq will soon return to “normal” safeguards verification after a further Security Council resolution (which will impose the Additional Protocol on Iraq);
 - North Korea has left the NPT → Broader political solution required;
 - Iran has again failed to report several activities; the IAEA will monitor with special inspections. Iran may soon adopt the Additional Protocol, voluntarily, under external pressure (European Union: as a condition for a new trade agreement)
- As a matter of principle, the IAEA knows no “rogue State”, only countries with anomalies and inconsistencies...



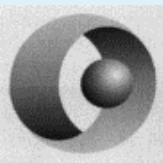
Sub-national groups: New situation ?

- Yes, because this is a new threat with its own objectives and rules. Acquisition of nuclear materials by thefts is the weak point. Fortunately, reaching ignition technology remains extremely difficult because of the heavy infrastructure and large manpower requirements.
- The threat of sub-national groups must first be countered by **adequate nuclear material security** in the whole world - to prevent theft and subsequent transfer to such groups.
- No direct action required in the NPT-IAEA context, since sub-national groups are deemed to operate with the blessing of at least one hosting State (in view of the size and scope required by a nuclear programme)



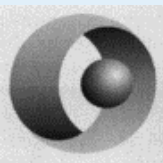
Radioactive sources

- “**Dirty bombs**”: a matter of public health, just like other toxic elements (dioxin in Seveso, thousands of victims more than ten years later...)
- No Weapons of Mass Destruction !
- However, the nuclear community cannot really disown the misuse of radioactive sources produced in nuclear reactors;
- Seven isotopes of concern: am-241, californium-252, cesium-137, cobalt-60, iridium-192, plutonium-238 and strontium-90;
- Six exporting countries: Canada, South Africa, Russia, Belgium, Argentina and France;
- **Better security worldwide could be achieved by exporting countries getting together to impose uniform conditions of uses, security standards, and recovery of old sources.**



A catalogue of possible actions in security and non-proliferation

1. Revision of the Convention on Physical Protection (to expand to civilian domestic use, uniformisation of standards)
 2. On radioactive sources; six-country export arrangement, followed by a broader Convention
-
1. A better, more transparent mechanism at the Security Council to handle cases of non-compliance (Need for a Protocol of Understanding among the five permanent members).
 2. Diplomatic efforts to make the Additional Protocol an unavoidable norm (NPT Review Conference 2005?) Broad acceptance of the Additional Protocol, only possible through international diplomacy and progress in the Middle East.
 3. Reinforce export controls (Nuclear suppliers group, Zangger Committee): Additional Protocol as pre-condition for business



A modest vision...

- A new regime to replace or expand the current one is not needed, and anyway impossible to achieve internationally now. In such endeavours, US leadership is absolutely essential to achieve results; yet, with US credibility at the lowest point ever, the priority is too make the best use of what we have, rather than inventing new schemes...
- A positive engagement for international solutions by the key players is the way to go in order to facilitate acceptance of international norms by the other countries. Questionable behaviour does not help:
 - *e.g., the non-ratification of the Additional Protocol by the 15 countries of the European Union 5 years after signature weakens the European position to entice Iran to adopt it;*
 - *e.g., the non-ratification by the United States of a number of international treaties - negotiated under the leadership of past US presidents – provides ample justification for other countries not to move forward.*

